

Issue:

Current RVSM guidance material makes general provision for special flight authorization of non-RVSM compliant experimental aircraft but does not include or reference specific guidance for an operator to obtain such authorization.

Discussion:

Current guidance material for RVSM approval is available (Interim Guidance Material ...91-RVSM) and has been used for RVSM approval on many different models of Type Certificated aircraft. This guidance material includes provision for special handling of experimental aircraft, i.e. "Experimental aircraft should be approved through special flight authorizations". However, no specific guidance is provided or referenced to help experimental aircraft operators gain approval for operations in RVSM airspace.

There are numerous experimental flight test aircraft in service which must continue to be flown as test beds for research and development of new avionics and other aircraft systems that will be required to support the FAA's safety enhancement and NAS modernization objectives. These aircraft typically share the following constraints to RVSM approval in accordance with current guidance material:

No Type Certificate is available

Pitot-static system support from the manufacturer may not be available

RVSM compliant updates for the air data and/or flight control systems may not be available

Temporary flight test reconfiguration may impact static system errors, e.g.

Oversize radome, external instrumentation pods or antennas

Recommendation:

Consideration should be made for experimental flight test aircraft, engaged in qualifying research and development, to be evaluated and issued a re-usable Special Flight Test Authorization for operation in RVSM airspace. Such operations may be identified to air traffic services for vertical separation purposes, by allocating an equipment suffix designator to be used in each flight plan.